

We claim:

1. A method of preparing an individual for a predetermined activity, wherein said predetermined activity requires the tagging of at least some colonic residue in the individual's digestive tract, said system comprising:
 - (a) administering less than 7 doses of a tagging agent over a 20 to 36 hour administration period; wherein each dose of tagging agent comprises greater than 2% w/v tagging agent; and
 - (b) administering about 1 to 4 liters of total fluid over the 20 to 36 hour administration period with the patient free from administration of laxatives or cathartics for at least 24 hours.
- 15 2. The method of claim 1, wherein the administration of tagging agent is less than 5 doses; the volume of each dose ranging between 25 to 250 ml; and wherein the total fluid intake is 1 to 3 liters over the 20 to 36 hour administration period.
- 20 3. The method of claim 1, wherein the administration of tagging agent is 4 doses; wherein the volume of one dose comprises at least 30% w/v tagging agent; and the volume of the remaining 3 doses range from about 200 ml to 250 ml and comprises greater than 2% w/v tagging agent.
- 25 4. The method of claim 1, wherein the administration of tagging agent is 3 doses; wherein the volume of each dose is about 20ml and comprises about 40% w/v tagging agent.
- 30 5. The method of claims 1-4, wherein the tagging agent is Barium Sulfate.

6. The method of claim 1, wherein the tagging agent is combined with Sorbitol or Mannitol.
7. A method for use in preparing an individual for a predetermined activity; wherein said predetermined activity requires the tagging of at least some colonic residue in the individual's digestive tract, said method comprising the steps of :
 - (a) administering one or more food items collectively comprising:
 - i. at least 100 calories;
 - ii. at least 0.5 grams of dietary fiber;
 - iii. at least 0.5% of the calories are derived from fat; and
 - iv. about at least 1% by weight of solid material.
 - (b) administering one or more doses of a tagging agent prior to the predetermined activity.
wherein the one or more food items is administered over at least a 20-hour period.
8. The method of claim 7, wherein the tagging agent is Barium Sulfate or Iodine one or more food items collectively comprising:
 - i. more than about 600 calories;
 - ii. less than about 15 grams of dietary fiber; and
 - iii. less than about 25% of the calories are derived from fat.
9. The method of claim 7, wherein the one or more food items collectively comprising:
 - i. from about 600 to about 2,000 calories;
 - ii. from about 0.5 grams to about 10 grams of dietary fiber;

- iii. from about 0.5% to about 20% of the calories are derived from fat; and
- iv. from about 10% to about 30% by weight of solid material.

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- 10. The method of claim 7, wherein the tagging agent is combined with Sorbitol or Mannitol.
- 11. The method of claim 7, wherein the one or more food components are selected from the group consisting of nutritional drinks, beverages, soup products, starch foods, grain foods, protein supplements, fruit foods and vegetable foods.
- 12. The method of claim 7, wherein the total fluid intake by the individual is about 1 to 2 liters.
- 13. A method for generating radiography images of one or more sections of an individual's gastrointestinal tract for screening, comprising
 - (i) administering to the individual a low residue diet over at least a 48-hour period;
 - (ii) administering to the individual one or more doses of a tagging agent over the at least 48-hour period;
 - (iii) with the patient free from administration of laxatives or cathartics for at least 24 hours, imaging the one or more sections of the individual's gastrointestinal tract after the administration period;
 - (iv) producing a radiography image of the one or more sections of the individual's gastrointestinal tract; said image showing stool marked with the tagging agent;
 - (v) screening the radiography image to identify the presence of any abnormality in the gastrointestinal tract without removing and/or subtracting the marked stool from the images.
- 20. The method of claim 13, wherein the images are produced in connection with a predetermined activity, including sigmoidscopy,
- 25. The method of claim 13, wherein the images are produced in connection with a predetermined activity, including sigmoidscopy,
- 30. The method of claim 13, wherein the images are produced in connection with a predetermined activity, including sigmoidscopy,

fiberoptic colonoscopy, CT colonography or MR colonography of the individual's colon.

15. The method of claim 13, wherein the administration of tagging agent is
5 less than 5 doses; the volume of each dose ranging between 25 to 250 ml; and wherein the total fluid intake is 1 to 3 liters over the 20 to 36 hour administration period.
16. The method of claim 13, wherein the administration of tagging agent is
10 4 doses; wherein the volume of one dose comprises at least 30% w/v tagging agent; and the volume of the remaining 3 doses range from about 200 ml to 230 ml and comprises greater than 2% w/v tagging agent.
- 15 17. The method of claim 13, wherein the administration of tagging agent is
3 doses; wherein the volume of each dose is about 20ml and comprises about 40% w/v tagging agent.
18. The method of claims 15-17, wherein the tagging agent is Barium
20 Sulfate.
19. A method of preparing an individual for a predetermined activity; wherein said predetermined activity requires the tagging of at least some colonic residue in the individual's digestive tract; said method comprising the steps of
25 (i) administering one or more food items comprising sufficient tagging agent so that consumption of the one or more food items by the individual causes the stool to become tagged.
- 30 20. The method of claim 19, wherein the one or more food items are administered over at least a 24-hour period before the predetermined activity.

21. The method of claim 19 wherein each of the one or more food items comprises at from about 0.01g to about 150g of tagging agent.
- 5 22. The method of claim 20, wherein the total amount of tagging agent consumed by the individual during the 24-hour administration period is at least 1g.
- 10 23. The method of claim 19, wherein the individual's total fluid intake during the 24-hour administration period is 1 to 3 liters.
24. The method of claims 1, 7, and 19, wherein the predetermined activity is a fiberoptic colonoscopy, virtual colonoscopy, sigmoidoscopy or barium enema.
- 15 25. The method of claim 7, wherein the one or more food items constitute a first feeding, a second feeding, and a third feeding.
- 20 26. The method of claims 1, 7, 13 and 19, further comprising the step of providing a mild laxative regimen prior to the predetermined activity.
27. The method of claims 1, 7, and 19 wherein the last dose is administered to the individual more than 8 hours prior to predetermined activity.

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